

PATENT  
P-5838

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT(S): Liebmann-Vinson et al.

SERIAL NO.: 10/660,760

GROUP: 1712

FILING DATE: September 12, 2003

EXAMINER:

FOR: METHODS OF SURFACE MODIFICATION OF A FLEXIBLE  
SUBSTRATE TO ENHANCE CELL ADHESION

Mail Stop DD  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT  
(SUBMISSION AFTER FILING OF AN APPLICATION  
BUT BEFORE FINAL REJECTION OR NOTICE OF ALLOWANCE  
OR CONCURRENTLY WITH A RULE 53(d) CPA APPLICATION  
OR WITH A RULE 1.114 RCE APPLICATION)**

Sir:

Pursuant to 37 C.F.R. §§ 1.97 and 1.98, applicant(s) hereby submit(s) an Information Disclosure Statement for consideration by the Examiner.

**I. LIST OF PATENTS, PUBLICATIONS OR OTHER INFORMATION**

The patents, publications, or other information submitted for consideration by the Office are listed on the PTO/SB/08A(s), attached hereto.

**II. COPIES (check at least one box)**

- a. ☒ Submitted herewith is a legible copy of (i) each foreign patent; (ii) each publication or that portion which caused it to be listed; and (iii) all other information or that portion which caused it to be listed.
- b. ☐ Some or all of the documents listed on the PTO/SB/08A are not enclosed because they were cited in the International Search Report and copies should already be in the PTO file. If copies are needed, please contact the undersigned.

III. CONCISE EXPLANATION OF THE RELEVANCE  
(check at least one box)

a. ☒ **DOCUMENTS IN THE ENGLISH LANGUAGE**

The attached patents, publications, or other information in the English language do not require a statement of relevancy.

b. ☐ **DOCUMENTS NOT IN THE ENGLISH LANGUAGE**

A concise explanation of the relevance of all patents, publications, or other information listed that is not in the English language is as follows:

c. ☐ **ENGLISH LANGUAGE SEARCH REPORT**

An English language version of the search report or action that indicates the degree of relevance found by the foreign office is attached, thereby satisfying the requirement for a concise explanation. See MPEP 609(A)(3).

d. ☐ **OTHER**

The following additional information is provided for the Examiner's consideration.

FEES

IV. ☒ THIS IDS IS BEING FILED UNDER 37 C.F.R. § 1.97(b):  
(check one box)

- a. ☐ within three months of the filing date of a national application (37 C.F.R. § 1.97(b)(1)). No fee or statement is required. (This section is not to be used with RCE's and CPA's).
- b. ☐ within three months of the date of entry of the national stage as set forth in § 1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or statement is required.
- c. ☐ concurrently with the filing of a Continued Prosecution Application under 37 C.F.R. § 1.53(d) or concurrently with the filing of a Request for Continued Examination under § 1.114 (37 C.F.R. § 1.97(b)(4)). No fee or statement is required.
- d. ☒ before the mailing date of a first Action on the merits (37 C.F.R. § 1.97(b)(3)). No fee or statement is required.

In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97(c) and see the statement under 37 C.F.R. § 1.97(e) below, or, if no statement has been made, charge Deposit Account No. 02-1666 in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).

V. ☐ THIS IDS IS BEING FILED UNDER 37 C.F.R. § 1.97(c):  
(check one box)

before the mailing date of a Final Office Action under 37 C.F.R. § 1.113 (See 37 C.F.R. § 1.97(c)(1)) or before the mailing date of a Notice of Allowance under 37 C.F.R. § 1.311 (See 37 C.F.R. § 1.97(c)(2)).

- a. ☐ No statement; therefore, a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).

or

- b. ☐ See the statement below. No fee is required.

VI. STATEMENT UNDER 37 C.F.R. § 1.97(e) (check only one box)

The undersigned hereby states that

- a. ☐ each item of information contained in the IDS was first cited in any communication from a foreign Patent Office in a counterpart foreign application not more than three months prior to the filing of this IDS; or
- b. ☐ no item of information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of the IDS.
- c. ☐ Some of the items of information were cited in a communication from a foreign Patent Office. As to this information, the undersigned states that each item of information contained in the IDS was first cited in a communication from a foreign Patent Office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby states that no item of this remaining information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application and, to the best of my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this statement.

VII. PAYMENT OF FEES (check one box)

A check in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p) is enclosed for the above-identified fee.

- ☒ No fee is required.
- ☐ Please charge Deposit Account No. 02-1666 in the amount required by 37 C.F.R. § 1.17(p) for the above-indicated fee. A triplicate copy of this paper is attached.

If the Examiner has any questions concerning this IDS, he/she is requested to contact the undersigned. If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule and charge the appropriate fee to Deposit Account No. 02-1666.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-1666 for any additional fees required under 37 C.F.R. § 1.16 or under § 1.17; particularly, extension of time fees.

Respectfully submitted,

By *Susana Wagner*  
Jacinda Wagner, Reg. No. 42,207

Date: *February 23, 2004*

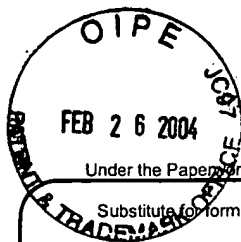
Becton, Dickinson and Company  
1 Becton Drive, MC 089  
Franklin Lakes, New Jersey 07417  
(201) 847-6659

Enclosures: ☒ PTO/SB/08A  
☒ Documents  
☐ Foreign Search Report  
☐ Fee  
☐ Other:

(Rev. 01/03/03)

Doc. No. 74881

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ON: <u><i>February 24, 2004</i></u>	
BY: SUSAN R. WAGNER <u><i>Susan R. Wagner</i></u> (SIGNATURE)	<u><i>2/24/04</i></u> (DATE)



PTO/SB/08A (04-03)

Approved for use through 04/30/2003. OMB 0651-0031

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Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/660,760
Filing Date	September 12, 2003
First Named Inventor	LIEBMANN-VINSON et al
Art Unit	
Examiner Name	
Attorney Docket Number	P-5838

Sheet 1 of 5

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- 6395506	05-28-2002	Pitner et al.	
		US- 6218178	04-17-2001	Banes	
		US- 6107083	08-22-2000	Collins et al.	
		US- 6080574	06-27-2000	Berndt	
		US- 6057150	05-02-2000	Lee et al.	
		US- 6048723	04-11-2000	Banes	
		US- 6037141	03-14-2000	Banes	
		US- 5998517	12-07-1999	Gentle et al.	
		US- 5567598	10-22-1996	Stitt et al.	
		US- 5278063	01-11-1994	Hubbell et al	
		US- 4851521	07-25-1989	della Valle et al	
		US- 4839280	06-13-1989	Banes	
		US- 4822741	04-18-1989	Banes	
		US- 4789601	12-06-1988	Banes	
		US-			
		US-			
		US-			
		US-			
		US-			

**FOREIGN PATENT DOCUMENTS**

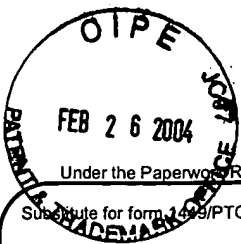
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Complete if Known</b>			
		Application Number	10/660,760		
		Filing Date	September 12, 2003		
		First Named Inventor	LIEBMANN-VINSON et al		
		Art Unit			
		Examiner Name			
Sheet	2	of	5	Attorney Docket Number	P-5838

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		BRANDLEY et al., Anal. Biochem. (1988) 172:270.	
		CHAUDHURY et al., Langmuir, (1991) 7:1013-1025.	
		CHOI et al., Biomaterials (1999) 20:409-417.	
		COSTELLO et al., Macromolecules (1987) 20:2819-2828.	
		COUCHMAN et al., J.Cell Biol.,(1982) 93:402-410.	
		EFIMENKO et al., J. Colloid Interface Sci., (2002) 254(2):306-315.	
		EFIMENKO et al., Adv. Matl., (2001) 13:1560-63.	
		GENZER et al., Science (2000) 290:2130-33.	
		GRINNELL, F., Int. Rev. Cytology (1978) 53:67-149.	
		GUTSCHE et al., Biomaterials (1996) 17:387-393.	

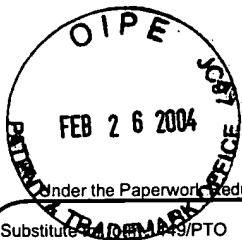
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Sheet	3	of	5	Attorney Docket Number	P-5838

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		HERN et al., J. Biomed. Mater. Res. (1998) 39:266-276.	
		HSIUE et al., J. Biomed. Mater. Res., (1998) 42:134-147.	
		KIM et al., Ann. Surgery (1998) 228:8-13.	
		KLEINMAN, et al., Biochem. Biophys. Res. Commun. (1976) 72:426-432.	
		LATEEF et al., Biomaterials, (2002) 23: 3159-3168.	
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		LU et al., Biomaterials (2000) 21: 1595- 1605.	
		MADIHALLY et al., Biomaterials. (1999) 20:1133-42. .	
		MOONEY et al., Biomaterials (1996) 17:1417-1422.	
		MURAKAMI et al., J. Colloid & Interface Science (1998) 200:192-94.	

Examiner Signature	Date Considered
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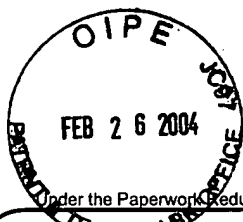
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		Examiner Name			
Sheet	4	of	5	Attorney Docket Number	P-5838

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		OXLEY et al. Biomaterials (1993) 14:1064-1072.	
		PEARLSTEIN, E., Nature (1976) 262:497-500.	
		PINILLA et al., Meth. Molec. Biol., (1996) 66:171-179.	
		RANUCCI et al., Tissue Engineering (1999) 5: 407-420.	
		SAAD et al., J. Biomed. Res. (1996) 32:355-366.	
		SILVER et al., Biomaterials, (1999) 20: 1533-1543.	
		SILVER et al., Journal of Biomedical Materials Research (1995) 29:535-548.	
		SINGER et al., J. Cell Biol. (1987) 104:573-584.	
		TORRES et al., Biomaterials (2000) 21:1607-19.	
		VOGLER et al., Journal of Biomedical Materials Research (1987) 21:1197-1211.	

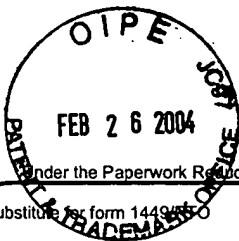
Examiner Signature		Date Considered	
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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/660,760
Filing Date	September 12, 2003
First Named Inventor	LIEBMANN-VINSON et al
Art Unit	
Examiner Name	
Attorney Docket Number	P-5838

Sheet	5	of	5
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**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		WHANG et al., Polymer (1995) 36:837-842.	
		WU et al., Macromolecules (2001) 34:684-86.	
		ZHANG et al., J. Biomed. Mater. Res., (1999) 45:285-293.	

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